District Technology Training Plan

Montgomery County Public Schools

UMUC EDTC 640

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Table of Contents

The District 3

The Problems 4

The Needs 9

The Audience 11

The Goals/Objectives 12

Content 13

Instructional Strategies 17

Field Test 29

Revision 30

Evaluations 30

Summative Evaluation 31

Budget 32

Conclusion 33

Bibliography 33

Attachment: Technology Survey 36

# The District

Montgomery County Public Schools (MCPS) has 153,852 students and is the largest school system in the state of Maryland. MCPS is the 17th largest school system in the United States. There are 202 schools in the county, including 133 elementary schools. The county is very diverse. There are students from 157 countries speaking 138 languages. The county focuses on employing high quality teachers. 88.4 percent of teachers have a master’s degree or equivalent (Montgomery County Public Schools, 2014a) and 96.8 percent of core academic subjects are taught by “highly qualified” teachers. This is how The Maryland State Education Department defines highly qualified teachers: “Teachers must meet minimum requirements both in content knowledge and teaching skills. Teachers must have a bachelor’s degree, full state certification and demonstrate content knowledge in the subjects they teach”(Maryland State Department of Education, 2014).

Source: <http://montgomeryschoolsmd.org/departments/sharedaccountability/reports/2013/OfficialEnrollmentSuppressed20130930.pdf>

The MCPS Technology Initiative is making it a priority to creating classroom environment where students can “explore, collaborate with others, and engage in a broad array of learning opportunities” (Montgomery County Public Schools, 2014b). During 2013-2014, the district made “upgrades to the technology infrastructure of its schools, including the installation of wireless networks in every building” (Montgomery County Public Schools, 2014b). Their focus now is to provide training in order to “ensure our students get the most out of this investment” (Montgomery County Public Schools, 2014b).

# The Problems

**Effective teaching strategies to make Promethean Boards interactive**

Montgomery County Public Schools provided all teachers with Promethean Boards in the summer of 2013 and offered a voluntary training. After a year and a half, the survey showed that there is a problem with teachers using the Promethean Boards effectively. There have been no trainings with the ActivVotes and ActivExpression or on how to use the new technology to encourage interactivity with the students. According to my survey 89% of teachers feel that the limited interactivity with the Promethean Boards is a problem.

**No training with new Chromebooks**

As always, testing is an important way to measure student performance. The new PARCC test is a computer-based assessment. Not only does it involve various technology skills, but it is taken on a computer (or lap top/Chromebook). So the county purchased Chromebooks with a 1:1 per-student ratio in grades 3 and 5. The teachers who have received these new Chromebooks have not received training on how to incorporate the new technology in the classroom beyond testing. According to my survey, 78% of teachers feel that training is needed for the new Chromebooks.

**Slight decrease in test scores**

Based on data released from MCPS, there is a slight decline from 2012 to 2013 in the percentage of students who met or exceeded the end-of-year reading benchmark in both Grades 1 and 2. The decline not only occurred in the percentage of all students, but in 4 out of 5 race/ethnicity subgroups. According to Maryland State data, there has also been a slight decline in MSA scores for Grades 3-8 and high school MSA scores. There is an availability of various already-purchased software applications that go unused, such as e-books on reading a-z.

**Lack of technology during testing**

Although the purchase of the Chromebooks for all 3rd, 5th, 8th and high school social studies students has eased the loss of technology during testing, other grade levels and subject areas are still lacking this technology, especially during testing. The Chromebooks were delivered in the middle of the 2014-2015 school year and no training has been given on how to use them for anything other than testing.

**Lack of keyboarding skills**

Students in all grade levels still lack proper keyboarding skills. With touch screens and mouses, keyboards are not as essential, but they are necessary, and proper typing skills can make using technology with a keyboard more efficient and productive.

**Wi-Fi issues**

In many school, the Wi-Fi phases on and off so when older students are on their own devices, they are constantly logging on and needing to refresh. Students are allowed and encouraged to bring their own devices, but often they do not because they fear the devices may be stolen.

**Faulty student response systems**

Although some teachers make an attempt to use student response systems, such as Activotes, there are issues with using them. Some teachers complain that the Activotes don’t work when they are needed. They have tried many strategies to get them working, but the hassle prevents them from using them consistently.

**Not enough technology**

Even with the new Chromebooks, a computer lab and laptop carts, there is not enough technology to consistently use it during class time even not during testing. The computer lab provides ample computers, but the lab time is so limited it is difficult to schedule. On the high school level, there are only 15 Chromebooks and 10 laptops when there are often 25 students per classroom.

**Inconsistent resources throughout the county**

Montgomery County Public Schools is very diverse. There are some school clusters, such as in Bethesda and Potomac, that are very high-income communities. Many of these families have a computer, tablet and smart phone per person in the family. Other areas, such as Wheaton and Gaithersburg have many low-income neighborhoods. Many of these students don’t own computers at home. Some own computers, but don’t have printers. These low-income families often resort to sharing a tablet with an entire family. Silver Spring is a microcosm of the county. There are million dollar homes in neighborhoods just miles from apartment complexes.

**Lack of online research skills**

This is an area that does not seem to be taken seriously by students party because it does not seem to be taken very seriously by teachers. Many teachers were not educated on proper online research techniques, especially if they graduated before the Internet. Many teachers use images and never cite sources or share videos that are not approved by the county. It is no wonder that students enter high school and they don’t know how to research other than using Google.

**Critical thinking skills**

The district has already invested time and money into showing teachers how to use critical thinking in the classroom. The county trained approximately 100 teachers in a two-year group with the help of Dr. Garfield Ginni-Newman. Many teachers took the information back to their schools, but the teachers I surveyed that had been trained in their school said that it seems to have died. There is a renewed interest in this and Garfield is visiting schools discussing critical thinking with their entire leadership teams.

**Common Core and technology**

The MCPS curriculum, based on Common Core, does not specifically include activities that are technology-based because MCPS leadership is aware of the inconsistent technology resources in various schools. It is up to the teacher to modify the curriculum to use technology tools. There are indicators on all grade levels that specifically say “use technology.” For example, a grade 1 writing standard states, “Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others” (Maryland State Department of Education, 2014e). So, although the curriculum does not specifically state how to incorporate the technology, technology is expected and the teachers are responsible to decide when and how to incorporate it.

Source: <http://montgomeryschoolsmd.org/departments/sharedaccountability/reports/2013/13.10.01%20ES%20Prin%20Memo%202013%20APPR.pdf>

Source: <http://montgomeryschoolsmd.org/departments/sharedaccountability/reports/2013/13.10.01%20ES%20Prin%20Memo%202013%20APPR.pdf>

Source: <http://mdreportcard.org/MsaTrends.aspx?PV=1:3:15:AAAA:2:N:0:13:1:2:0:1:1:1:3>

Source: <http://mdreportcard.org/MsaHighTrends.aspx?PV=45:12:15:AAAA:1:N:0:13:2:2:1:1:1:1:3>

# The Needs

After surveying several teachers in Montgomery County Public Schools, including teachers, an administrator, a reading specialist, a staff development teacher and a media specialist, the needs of how to incorporate technology into the district was becoming clear. I surveyed 9 people in all who had an average of 12.9 years of experience in teaching. The percentage of my survey participants’ highest degree of education is as follows: Bachelor’s Degree – 22%, Master’s Degree – 33% and Master’s plus 30 – 45%. On a scale of 1 to 5 (1 = not comfortable and 5 = very comfortable) of how comfortable the participant was using technology, 11% rated themselves as a 3, 56% rated themselves as a 4 and 33% rated themselves as a 5. On a scale of 1 to 5 (1 = not very much and 5 = very much) of how the participants feel about how effectively teachers in MCPS use technology, 11% rated the teachers as a 1, 11% rated the teachers as a 2, 45% rated the teachers as a 3, 33 % rated the teachers as a 4 and 0% rated the teachers as a 5. This last piece of data is very powerful. Although 33% of the participants rated themselves as a 5, none of the teachers saw other teachers as a 5 (and therefore needed additional training).

A significant need in MCPS is to provide additional technology in schools. This is a priority in the county. With the addition of Google Chromebooks in grades 3, 5, 8 and high school social studies classes in the 2014-2015 school year, steps are being taken to supply this additional technology. My survey lists responses of which technology-training topics the teachers in the district would most benefit from. Surprisingly, most survey participants were interested in all of the topic options.

To summarize the technology needs of MCPS, although some teachers perceive themselves as very comfortable with technology, their perception is that other teachers are not highly effective with using technology. To prioritize, the necessary training needs are (in order):

1. Using effective teaching strategies with the Promethean Board,
2. Promoting interactivity and understanding proper use of Activotes and ActivExpression with the Promethean Board.
3. Integrating the Google Chromebook with the Common Core curriculum,
4. Setting up organizational systems (on Google Drive) for students using the Google Chromebooks,
5. Using E-books in the elementary classroom,
6. Digital sharing beyond word processing and keyboarding skills
7. Using technology to promote critical thinking skills (already being addressed by MCPS- see details in “problems”)
8. Finding apps that align with the Common Core curriculum,
9. Researching safely in the classroom, and
10. Using blogs with elementary students.

# The Audience

The audience of this district technology training plan (DTTP) is all teachers in the county – elementary, middle school and high school teachers. In the county, 96.8% of teachers were highly qualified in 2013-2014. The educational level of the teachers in Montgomery County Public Schools is very high. 88.4% of all teachers have a master’s degree or equivalent. (Montgomery County Public Schools, 2014a) Despite this high educational level, not all of these teachers have been able to use effective teaching strategies with technology due to its lack of availability. With the new technologies emerging, the teachers can be identified from beginners, to intermediates, to experienced with technology. Deciding where teachers fall in this continuum can be a challenge because teachers may not evaluate their skills appropriately or be consistent with the views of other teachers, as seen in my survey. All of the teachers speak English, but with the high percentage of ESOL students (14.6%), many bilingual teachers are being hired (Montgomery County Public Schools, 2014c).

Source: <http://www.mdreportcard.org/ClassesbyNHQTeachers.aspx?PV=33::15:AAAA:1:N:6:1:1:2:1:1:1:1:3>

# The Goals/Objectives

In an effort to deal with the problems in the county and to address the county’s needs, the following goals have been set:

1. Improve the effectiveness of the available technology tools
2. Improve the interactivity and engagement students have with their learning in the classroom
3. Improve the integration of the technology tools with the Common Core
4. Improve teachers’ abilities to use technology to create student-centered learning environments
5. Improve student performance through the use of technology
6. Improve students’ ability to use technology efficiently with proper keyboarding skills
7. Improve students’ proper and safe research skills

With these goals accomplished, teachers will be able to provide student-centered, interactive and highly engaging learning experiences for elementary, middle school and high school students and therefore student performance scores will increase.

# Content

| **Title and Description** | **Audience** |
| --- | --- |
| **Promoting Interactivity with the Promethean Board**  Participants in this training will see two lessons, one in which the student response systems (Activotes and ActivExpressions) are used, but does not promote interactivity and one in which the student response systems effectively promote interactivity. Participants will learn strategies that are very effective to promote interactivity with the Promethean Board. Participants will have the opportunity to create their own flipchart that promotes interactivity using the student response systems. | Elementary teachers (including reading specialists and staff development teachers) and administrators  Middle School teachers and administrators  High School teachers and administrators |
| **Promoting Student-Centered Learning**  Participants in this training will see two lessons, one flipchart lesson that is teacher-centered and one that is student-centered. Participants will learn strategies to create flipcharts that facilitate student-centered learning. Participants will have the opportunity to create a student-centered flipchart. | Elementary teachers (including reading specialists and staff development teachers) and administrators  Middle School teachers and administrators  High School teachers and administrators |
| **Integrating the Google Chromebook**  Participants in this training will become familiar with various features available with the Google Chromebooks. Participants will be introduced to organizational strategies for students when saving information on Google Drive and learn ways to align Common Core with the features on the Google Chromebook. Participants will have the opportunity to create lesson ideas/plans using Google Chromebooks with Common Core. | Elementary (grades 3-5) teachers (including reading specialists and staff development teachers) and administrators  Middle School teachers and administrators  High School teachers and administrators |
| **Using E-books in the Classroom**  Participants in this training will be introduced to the benefits of e-books and how to incorporate them in the elementary, middle school and high school level. Participants will learn the features with the e-books available on already purchased software applications, such as reading a-z. Participants will have the opportunity to create lesson ideas/plans for guided reading groups, literacy centers or independent work, depending on their grade level. | Elementary teachers (including reading specialists and staff development teachers) and administrators  Middle School and high school teachers and administrators |
| **Digital Sharing Beyond Word Processing**  Participants in this training will be introduced to the benefits of digital sharing and how to incorporate digital sharing at all grade levels. Participants will be exposed to many different digital sharing websites or software applications. Safety using digital sharing with students will be discussed. Participants will use digital sharing websites or software available in MCPS to allow their students to share their work. | Elementary teachers (including reading specialists and staff development teachers) and administrators  Middle School teachers and administrators  High School teachers and administrators |
| **Finding apps that align with the Common Core curriculum**  Participants in this training will be introduced to the benefits of using apps that align with the Common Core curriculum. Participants will be exposed to various apps that can be used in all subject areas. Safety using tablets will be discussed. Participants will create a Webliography of apps with a description of how it aligns to the Common Core. | Elementary teachers (including reading specialists and staff development teachers) and administrations  Middle School teachers and administrators |
| **Using tablets in the elementary classroom**  Participants in this training will be introduced to the benefits of using tablets in the elementary classroom. Participants will be exposed to various apps that can be used in all subject areas. Safety using tablets will be discussed. Management strategies be discussed depending on the number of tablets available. | Elementary teachers (including reading specialists and staff development teachers) and administrations |
| **Teaching keyboarding skills for elementary teachers**  Participants in this training will be introduced to the benefits of proper keyboarding skills in the elementary classroom. Participants will be exposed to various online resources that will support keyboarding skills and instructional strategies that will promote proper keyboarding skills. | Elementary teachers (including reading specialists and staff development teachers) and administrators |
| **Researching safely in the elementary classroom**  Participants in this training will be introduced to the dangers of researching online and the benefits of safe researching. Participants will be exposed to a variety of online research tools appropriate for elementary students, search tools, cross-checking sources when appropriate and citing sources. Participants will create a Webliography of research tools or websites appropriate for elementary students with a description of their features. | Elementary teachers (including reading specialists and staff development teachers) and administrators |
| **Researching safely in the middle school classroom**  Participants in this training will be introduced to the dangers of researching online and the benefits of safe researching. Participants will be exposed to a variety of online research tools appropriate for middle school students, search tools, cross-checking sources when appropriate and citing sources. Participants will create a Webliography of research tools or websites appropriate for middle school students with a description of their features. | Middle School teachers and administrators. |
| **Researching safely in the high school classroom**  Participants in this training will be introduced to the dangers of researching online and the benefits of safe researching. Participants will be exposed to a variety of online research tools appropriate for high school students, search tools, cross-checking sources when appropriate and citing sources. Participants will create a Webliography of research tools or websites appropriate for high school students with a description of their features. | High School teachers and administrators |
| **Using blogs with elementary students**  Participants in this training will be introduced to the benefits of blogging with elementary students. Participants will be exposed to a variety of blogging websites (kidblog.org) that are appropriate for elementary students. Digital citizenship and safety with blogging will be discussed. Participants will create a two lessons that incorporate blogging. | Elementary teachers (including reading specialists and staff development teachers) and administrators |

# Instructional Strategies

A wide variety of instructional strategies will be used in the DTTP. The goals of this training plan will focus on teaching teachers to promote student-centered environments and interactivity in the classroom using technology. Therefore, the instructional strategies used will be learner-centered and interactive. Technology will be used to model examples of effective lessons and ineffective lessons using technology. Participants will work in groups to collaborate and learn from each other. Participants will be exposed to many different ways to use digital sharing with their students. Participants will share digital presentations with the group and the trainer will engage participants in a summarizer activity. Pre-assessments will help the trainers to differentiate by sorting the participants into appropriate training groups and to drive instruction. Post-assessments will be compared to the pre-assessments to determine if and how much growth occurred during the training. Exit cards will be given each day to evaluate the participants’ progress each day. These exit cards will give the trainers the feedback needed to make adjustments.

**Sample Five Day Workshop**

A pre-assessment to determine whether a participant is a beginner, intermediate or experienced technology user for a topic will be given to participants before the trainings. Participants can be grouped according to their experience. It may be necessary to create homogeneous or heterogeneous groupings. The pre-assessment can be analyzed during a meet-and-eat breakfast on Day 1 so that groups can be properly formed. The pre-assessment will include the following questions:

| **Pre-Assessment** |
| --- |
| Training Topic : \_\_\_\_\_\_\_\_\_   1. How comfortable are you with using \_\_(topic)\_\_\_\_\_\_ in your classroom?   (not comfortable) 1 2 3 4 5 (very comfortable)   1. How often do you use \_\_(topic)\_\_\_\_\_\_ in your classroom?   (not often) 1 2 3 4 5 (very often)   1. How well are you able to effectively use \_\_(topic)\_\_\_\_\_\_ in your classroom?   (not well) 1 2 3 4 5 (very well)   1. How well can you teach others how to use this technology?   (not well) 1 2 3 4 5 (very well)   1. Do you consider yourself to be a:   Beginner Intermediate Experienced |

| **Workshop Title**: Digital Sharing Beyond Word Processing for Elementary | | **Day #1** |
| --- | --- | --- |
| **Subject of the day’s workshop:** Benefits of Digital Sharing | **Prerequisite Knowledge:** Teachers will need average computer skills. They will need to be able to create a digital presentation with some support, but not step-by-step instructions. | |
| **Content:** On Day 1, participants will explore the benefits of digital sharing and compare examples of traditional writing projects vs. digital presentations. Participants will introduce themselves using a digital presentation. | | |
| **Objectives:** Participants will be able to:   * Identify the benefits of digital sharing * Compare examples of traditional writing projects and digital presentations * Create a digital presentation that introduces themselves | | |
| **Workshop:**  1.Pre-assessment is given and collected.  2. Frame or introduce the lesson by identify what will be learned.  3. Ask what digital sharing is? Use think, pair, share to discuss with the group. Ask which is better: traditional writing projects or digital presentations? Use think, pair, share to discuss with the group. Show examples of traditional writing projects and digital presentations on the same topic. Again, ask which one is better? Use think, pair, share to discuss with the group.  4. Read “Meaningful Connections: Using Technology in Primary Classrooms” by Murphy et.al. (http://www.naeyc.org/files/yc/file/200311/TechInPrimaryClassrooms.pdf) Use think, pair, share to discuss with the group how the article supports or does not support digital sharing.  5. Choose one way the participant already knows how to make a digital presentation and use it to introduce himself or herself.  6. Share digital presentations with the class and use them for participants to introduce themselves.  7. Summarizer activity  8. Give Exit card. | | |
| **Additional Materials:**   * Copies of the online article: “Meaningful Connections: Using Technology in Primary Classrooms” by Murphy et.al. or the link to the article: http://www.naeyc.org/files/yc/file/200311/TechInPrimaryClassrooms.pdf * A computer for each participant * A Promethean Board * Various supplies (paper, post-it notes, pencils/pens) * A flipchart with examples of traditional writing projects and digital presentations on the same topic * Exit card: Name as many websites as possible that can be used for digital sharing. Exit card will also include a Plus/Delta for the day. | | |
| **Evaluation Strategies:** Give exit card. Evaluate the exit cards to see how many digital sharing websites the participants know, paying attention to specifically which ones they are familiar with. Also, evaluate their introduction presentations when they share them and assess the participants’ experiences with digital sharing. | | |

| **Workshop Title:** Digital Sharing Beyond Word Processing for Elementary | | **Day #2** |
| --- | --- | --- |
| **Subject of the day’s workshop:** Safety with Digital Sharing using Padlet | **Prerequisite Knowledge:** Teachers will need average computer skills. They will need to be able to create a digital presentation with some support, but not step-by-step instructions. | |
| **Content:** On Day 2, participants will explore the importance of safety and digital citizenship when using digital sharing. Participants will view two videos about digital citizenship and create a Padlet that demonstrates three ideas about digital citizenship. | | |
| **Objectives:**   * Identify the benefits of digital sharing * Identify the safety issues associated with digital sharing * Identify what digital citizenship is * Create a Padlet that demonstrates three ideas about digital citizenship | | |
| **Workshop:**  1. Frame or introduce the lesson by identify what will be learned.  2. Create a KWL chart on the Promethean Board: What do you think you know about digital safety? Participants contribute to complete the chart.  3. Ask what digital citizenship is. Use think, pair, share to discuss with the group.  4. As a group, watch the video, “Be A Digital Citizen” found at <https://www.youtube.com/watch?v=FdEXijFXfD8>  5. Use think, pair, share to discuss the video.  6. Participants will watch a second video, “Digital Citizenship” found at <https://www.youtube.com/watch?v=9yGkXY7a_1U> They will be instructed to make a quick digital presentation sharing three ideas from the video.  7. Padlet.com will be introduced and participants can register for free (if they have never done so).  8. Paricipants will create a Padlet sharing the three ideas from the Digital Citizenship video.  9. Revisit the KWL chart.  10. Share digital presentations with the class.  11. Summarizer activity  12. Give Exit card. | | |
| **Additional Materials:**   * A computer for each participant * The video “Be A Digital Citizen” found at <https://www.youtube.com/watch?v=FdEXijFXfD8> * The video “Digital Citizenship” found at <https://www.youtube.com/watch?v=9yGkXY7a_1U> * A Promethean Board * Various supplies (paper, post-it notes, pencils/pens) * Exit card: Define digital citizenship. Exit card will also include a Plus/Delta for the day. | | |
| **Evaluation Strategies:** Give exit card. Evaluate the exit cards to see how the participants define digital citizenship. Also, evaluate their padlet presentations for their understanding of digital citizenship. | | |

| **Workshop Title:** Digital Sharing Beyond Word Processing for Elementary | | **Day #3** |
| --- | --- | --- |
| **Subject of the day’s workshop:** Concerns about digital sharing and positive digital footprints using the digital presentations: Prezi and Google Doc (Slides) | **Prerequisite Knowledge:** Teachers will need average computer skills. They will need to be able to create a digital presentation with some support, but not step-by-step instructions. | |
| **Content:** On Day 3, participants will share their concerns about digital sharing and make a presentation about their concerns in Prezi. Participants will define what a digital footprint is and make a Google Doc (Slide) about digital footprints. | | |
| **Objectives:**   * Identify the benefits of digital sharing * Identify the safety issues associated with digital sharing * Identify what digital citizenship is * Create a Prezi sharing concerns about digital sharing * Create a Google Doc (Slide) describing what a digital footprint is | | |
| **Workshop:**  1. Frame or introduce the lesson by identify what will be learned.  2. Watch Prezi titled, “The Advantages of Using Digital Media over more Traditional Media” found at <https://prezi.com/0aa0y1gpbe8v/the-advantages-of-using-digital-media-over-more-traditional/>  3. Use think, pair, share to discuss the Prezi.  4. Prezi.com will be introduced and participants can register for free (if they have never done so).  5. Participants will create a simple Prezi sharing concerns they have with digital sharing.  6. Watch Prezi titled, “Be Deadly Online: Digital Footprint” found at <https://www.youtube.com/watch?v=O-qyW5kNmmo>  7. Use think, pair, share to discuss the Prezi.  8. Google Doc (Slides) will be introduced and participants can register for free (if they have never done so).  9. Participants will create a simple Google Doc (Slides) about what a digital footprint is.  10. Share digital presentations with the class.  11. Summarizer activity.  12. Give Exit card. | | |
| **Additional Materials:**   * A computer for each participant * Participants can will bring their county-issued Google Chromebooks. Extra Google Chromebooks will be provided. * A Promethean Board * Various supplies (paper, post-it notes, pencils/pens) * Prezi titled, “The Advantages of Using Digital Media over more Traditional Media” found at <https://prezi.com/0aa0y1gpbe8v/the-advantages-of-using-digital-media-over-more-traditional/> * Prezi titled, “Be Deadly Online: Digital Footprint” found at <https://www.youtube.com/watch?v=O-qyW5kNmmo> * Exit card: What concerns do you have about digital citizenship? Define digital footprint. Exit card will also include a Plus/Delta for the day. | | |
| **Evaluation Strategies:** Give exit card. Evaluate the exit cards to see how the participants define digital footprint and what their concerns are about digital sharing. Also, evaluate their Prezis and Google Doc (Slides) presentations. | | |

| **Workshop Title:** Digital Sharing Beyond Word Processing for Elementary | | **Day #4** |
| --- | --- | --- |
| **Subject of the day’s workshop:** The benefits of digital sharing and digital etiquette usingPowtoon and Kidspiration 3/Inspiration 9 | **Prerequisite Knowledge:** Teachers will need average computer skills. They will need to be able to create a digital presentation with some support, but not step-by-step instructions. | |
| **Content:** On Day 4, participants will create a simple Powtoon about the benefits of using digital sharing with elementary students instead of (or in addition to) traditional writing projects. Participants will create a simple Kidspiration 3/Inspiration 9 on digital etiquette or netiquette. | | |
| **Objectives:**   * Identify the benefits of digital sharing * Identify the safety issues associated with digital sharing * Identify what digital etiquette or netiquette is * Create a Powtoon about the benefits of using digital sharing with elementary students instead of (or in addition to) traditional writing * Create a simple Kidspiration 3/Inspiration 9 on digital etiquette or netiquette | | |
| **Workshop:**  1. Frame or introduce the lesson by identify what will be learned.  2. Watch video titled, “Five Ways to Make a Positive Digital Footprint” found at <https://www.youtube.com/watch?v=DwFE25f50P4>  3. Use think, pair, share to discuss the video (made on Powtoon).  4. Powtoon.com will be introduced and participants can register for free (if they have never done so).  5. Participants will create a simple Powtoon about the benefits of using digital sharing with elementary students instead of (or in addition to) traditional writing.  6. Watch the video titled, “Netiquette with Tim and Moby” found at  https://www.youtube.com/watch?v=R4EZQkNvXu0  7. Use think, pair, share to discuss the video.  8. Kidspiration 3/Inspiration 9 will be introduced. This software is on the MCPS server.  9. Participants will create a simple Kidspiration 3/Inspiration 9 on digital etiquette or netiquette.  10. Share digital presentations with the class.  11. Summarizer activity.  12. Give Exit card. | | |
| **Additional Materials:**   * A computer for each participant * A Promethean Board * Various supplies (paper, post-it notes, pencils/pens) * A video titled, “Five Ways to Make a Positive Digital Footprint” found at <https://www.youtube.com/watch?v=DwFE25f50P4> * A video titled, “Netiquette with Tim and Moby” found at https://www.youtube.com/watch?v=R4EZQkNvXu0 * Exit card: What are the benefits of using digital sharing with elementary students instead of (or in addition to) traditional writing? Define digital etiquette/netiquette. Exit card will also include a Plus/Delta for the day. | | |
| **Evaluation Strategies:** Give exit card. Evaluate the exit cards to see how the participants identify the benefits of using digital sharing and their definitions of digital etiquette or netiquette. Also, evaluate their Powtoon and Kidspiration 3/Inspiration 9 presentations. | | |

| **Workshop Title:** Digital Sharing Beyond Word Processing for Elementary | | **Day #5** |
| --- | --- | --- |
| **Subject of the day’s workshop:** Citing Sources usingGlogster, Thinglink and the Cybersmart website | **Prerequisite Knowledge:** Teachers will need average computer skills. They will need to be able to create a digital presentation with some support, but not step-by-step instructions. | |
| **Content:** On Day 5, participants will identify the importance of citing sources in the elementary classroom. Participants will create a simple Glogster or Thinglink about citing sources and also a culminating presentation from the information found on the CyberSmart website. | | |
| **Objectives:**   * Identify the importance of citing sources * Create a simple Glogster or Thinglink about citing sources with elementary students * Create a culminating digital presentation from the information on the Cybersmart website. | | |
| **Workshop:**  1. Frame or introduce the lesson by identify what will be learned.  2. Watch video titled, “When to Cite Your Sources” found at <https://www.youtube.com/watch?v=uY3OOpQbKkY>  3. Use think, pair, share to discuss the video.  4. Glogster.com or Thinglink.com will be briefly introduced and participants can register for free (if they have never done so).  5. Participants will create a simple Glogster or Thinglink about citing sources with elementary students.  6. Visit the website, Cybersmart found at <http://www.cybersmart.gov.au/Schools.aspx>  7. Use think, pair, share to discuss the website.  8. Pixie 3 will be introduced. This software is on the MCPS server.  9. Participants will go under the “Schools” tab, then click on “Cyber Issues” on the website and choose one topic and create a simple Pixie 3 (or any digital presentation they learned about during the training) to explain that topic.  10. Summarizer activity  11. Give Exit card | | |
| **Additional Materials:**   * A computer with to access the purchased MCPS software * A Promethean Board * Various supplies (paper, post-it notes, pencils/pens) * A video titled, “When to Cite Your Sources” found at <https://www.youtube.com/watch?v=uY3OOpQbKkY> * The website, Cybersmart found at <http://www.cybersmart.gov.au/Schools.aspx> * Post assessment will be given instead of an exit card. | | |
| **Evaluation Strategies:** Give post-assessment. Evaluate the post-assessments and compare them to the pre-assessments to determine the growth of the participants during the training. | | |

**Materials**

| Title | Subject/Topic | Link | Day # |
| --- | --- | --- | --- |
| Meaningful Connections: Using Technology in Primary Classrooms” by Murphy et.al. | Article about technology in primary classrooms | <http://www.naeyc.org/files/yc/file/200311/TechInPrimaryClassrooms.pdf> | 1 |
| Be A Digital Citizen | Video about being a Digital Citizen | <https://www.youtube.com/watch?v=FdEXijFXfD8> | 2 |
| Digital Citizenship | Video about Digital Citizenship | <https://www.youtube.com/watch?v=9yGkXY7a_1U> | 2 |
| The Advantages of Using Digital Media over more Traditional Media | Prezi about the advantages of using digital media over traditional media | <https://prezi.com/0aa0y1gpbe8v/the-advantages-of-using-digital-media-over-more-traditional/> | 3 |
| Be Deadly Online: Digital Footprint | Prezi about Digital Footprints (from Australia) | <https://www.youtube.com/watch?v=O-qyW5kNmmo> | 3 |
| Five Ways to Make a Positive Digital Footprint | Video (from Powtoon) about 5 ways to make a positive digital footprint | <https://www.youtube.com/watch?v=DwFE25f50P4> | 4 |
| Netiquette with Tim and Mobyfound | Video (from Brainpop) about Digital Etiquette or Netiquette | https://www.youtube.com/watch?v=R4EZQkNvXu0 | 4 |
| When to Cite Your Sources | Video (made by University of Waterloo) about when to cite sources | <https://www.youtube.com/watch?v=uY3OOpQbKkY> | 5 |
| Cybersmart website | Website (by Commonwealth of Australia) pertaining to issues around cyber-safety | <http://www.cybersmart.gov.au/Schools.aspx> | 5 |

# Field Test

A group of randomly selected participants or volunteers will be chosen to field test the training. It would be difficult to randomly select participants and make them attend. However, schools can be randomly selected and principals can ask for volunteers to attend the training/s before others and be on the “cutting edge.” Using the pre- and post-assessment, as well as evaluating the field test participants’ lesson plans/ideas, trainers can make appropriate revisions.

# Revision

As part of the revision process, the pre- and post-assessments (as described in the “Sample 5 day workshop” and “Evaluations”) will be analyzed after the field test. Trainers will also consider if there are enough materials. Were all of the participants engaged? Were the groupings appropriate? Exit cards given are also part of the field test revision process of this plan. Each day an exit card asks the participants to answer a question about the content of the day’s training. Each exit card also has a plus/delta that will allow participants to give feedback that can be continued (if positive) or revised (if negative).

# Evaluations

A post-assessment similar to the pre-assessment will be given at the end of each day. The responses can be compared to the pre-assessment in order to evaluate the success of the workshop each day. In addition to the 5 questions, a plus/delta and a space to share one idea that teachers plan to use in their classroom will be included.

| **Post-Assessment** |
| --- |
| Training Topic : \_\_\_\_\_\_\_\_\_   1. After this training, how comfortable are you with using \_\_(topic)\_\_\_\_\_\_ in your classroom?   (not comfortable) 1 2 3 4 5 (very comfortable)   1. After this training, how often do you think you will use \_\_(topic)\_\_\_\_\_\_ in your classroom?   (not often) 1 2 3 4 5 (very often)   1. After this training, how well do you think you are you able to effectively use \_\_(topic)\_\_\_\_\_\_ in your classroom?   (not well) 1 2 3 4 5 (very well)   1. After this training, how well can you teach others how to use this technology?   (not well) 1 2 3 4 5 (very well)   1. After this training, do you consider yourself to be a:   Beginner Intermediate Experienced  **Plus/Delta**  + ∆  Share one idea that you learned in this training that you will use in your classroom: |

# Summative Evaluation

My summative evaluation of my trainings will not only come from my daily exit cards, but also from my pre- and post-assessments.

The **exit cards** include a **daily plus/delta** in addition to a content question that will determine the participants understanding of the day’s goals and objectives. The plus/delta leaves the evaluation open to any comments or feedback that can be modified before the next training. If the participants don’t respond as desired on the exit card, that, too, can be adjusted in the next training. The plus/delta also allows participants to give feedback on the trainers’ effectiveness.

The **participants’ digital presentations** can be evaluated each day. If a particular participant seems to be struggling, more attention can be given to assist them the next time. If the majority of participants seem to be struggling or excelling, the next day’s training can be modified as needed.

**Pre- and post-assessments** will be given on the first day and the last day of training. The same questions are asked on both assessments so that a comparison can be made to determine the growth of the participants. Therefore, not only are the daily trainings being assessed, but the overall training will be assessed.

When evaluating the exit cards and pre- and post-assessments (specifically the plus/delta), the trainers can consider the length of the presentations, level of learner participation, the quantity of computers, amount of time to create digital presentations, amount of group work, the food and the room climate/temperature.

# Budget

| **Expense** | **How Many?** | **Cost** | **Total Cost** |
| --- | --- | --- | --- |
| Trainer/s | 2 per day | $40.00 per hour  x 30 hours (6 per day)  plus 8 hours (preparation and clean-up) = 30 + 8 = 38 x 2 (trainers) = **76 hours** | **76 hours x $40.00 = $3,040** |
| Stipend (option available for course credit) | Approx. 30 participants x 5 day x 6 hours per day = 900 hours | $20.00 per hour x 900 hours | **$18,000** |
| Training Location | 1 | $0.00 (MCPS computer lab used) | **$0.00** |
| Various supplies | Enough for 6 groups | $50.00 | **$50.00** |
| Breakfast and snacks | Per day (5 days) | $75 x 5 | **$375** |
| **Total:** |  |  | **$21,465** |

# Conclusion

A survey was given to teachers in the county to determine the technology problems and needs in Montgomery County Public Schools. The audience in the county was described. Based on the problems and needs, goals and objectives for a District Technology Training Plan were written. The courses needed to accomplish these goals were briefly described as well as the instructional strategies that would be used to implement this plan. A sample five-day workshop detailed what a specific training, “Digital Sharing Beyond Word Processing for Elementary,” would look like. Materials for the training, a budget and evaluations were outlined. A field test, as well as revisions to the field test, will ensure that the training is effective. Finally, the evaluations given during the actual training were explained.

# Bibliography

ACMAcybersmart. (2014, April 2). *Be deadly online – digital footprint* [Video file]. Retrieved from <https://www.youtube.com/watch?v=O-qyW5kNmmo>

Blah, B. (2013, January 9). *Digital citizenship* [Video file]. Retrieved from <https://www.youtube.com/watch?v=9yGkXY7a_1U>

Commonwealth of Australia (Ed.). (2015). Schools: cyber issues. Retrieved March 8, 2015, from cybersmart website: http://www.cybersmart.gov.au/Schools.aspx

Galvin, O. (2014, May 17). The advantages of using digital media over more traditional media[Video file]. Retrieved from <https://prezi.com/0aa0y1gpbe8v/the-advantages-of-using-digital-media-over-more-traditional/>

Maryland State Department of Education (Ed.). (2014, August 28a). 2014 Maryland report card. Retrieved March 5, 2015, from Maryland State Department of Education website: http://mdreportcard.org/MsaTrends.aspx?PV=1:3:15:AAAA:2:N:0:13:1:2:0:1:1:1:3

Maryland State Department of Education (Ed.). (2014, August 28b). 2014 Maryland report card. Retrieved March 5, 2015, from Maryland State Department of Education website: http://mdreportcard.org/MsaHighTrends.aspx?PV=45:12:15:AAAA:1:N:0:13:2:2:1:1:1:1:3

Maryland State Department of Education (Ed.). (2014, August 28c). 2014 Maryland report card. Retrieved March 5, 2015, from Maryland State Department of Education website: http://www.mdreportcard.org/TeacherQualificationsOverview.aspx?PV=33::15:AAAA:1:N:0:14:1:1:1:1:1:1:3

Maryland State Department of Education (Ed.). (2014, August 28d). 2014 Maryland report card. Retrieved March 5, 2015, from Maryland State Department of Education website: <http://www.mdreportcard.org/ClassesbyNHQTeachers.aspx?PV=33::15:AAAA:1:N:6:1:1:2:1:1:1:1:3>

Maryland State Department of Education (Ed.). (2014e). *MD college and career-ready standards*. Retrieved March 8, 2015, from School improvement in Maryland website: http://mdk12.org/share/frameworks/CCSC\_Writing\_grk-2.pdf

McClure, K. (2013, November 15). *5 ways to make a positive digital footprint* [Video file]. Retrieved from <https://www.youtube.com/watch?v=DwFE25f50P4>

Montgomery County Public Schools (2013). *Official race/ethnic membership of students.* Retrieved from http://montgomeryschoolsmd.org/departments/sharedaccountability/reports/2013/OfficialEnrollmentSuppressed20130930.pdf

Montgomery County Public Schools (Ed.). (2014a). *Schools at a glance*. Retrieved March 5, 2015, from Montgomery County Public Schools website: <http://montgomeryschoolsmd.org/uploadedFiles/about/20141208AtAGlance.pdf>

Montgomery County Public Schools. (2014b). Annual report to the community. Retrieved March 5, 2015, from Montgomery County Public Schools website: http://www.montgomeryschoolsmd.org/info/annualreport/#centuryskills

Montgomery County Public Schools (Ed.). (2014c). *Schools at a glance*. Retrieved March 5, 2015, from Montgomery County Public Schools website: http://www.montgomeryschoolsmd.org/departments/regulatoryaccountability/glance/currentyear/SAAG2014.pdf

Murphy, K. L., DePasquale, R., & McNamara, E. (2003, November). Meaningful connections: using technology in primary classrooms. *Beyond the Journal*. Retrieved from http://www.naeyc.org/files/yc/file/200311/TechInPrimaryClassrooms.pdf

Sanderson, G. (2013, October 1). Information: student performance on the 2013 assessment program in primary reading (kindergarten to grade 2) [E-mail]. Retrieved on March 5, 2015 from : <http://montgomeryschoolsmd.org/departments/sharedaccountability/reports/2013/13.10.01%20ES%20Prin%20Memo%202013%20APPR.pdf>

E-mail sent to elementary school principals and forwarded to elementary teachers.

Ssievert. (2014, August 21). *Netiquette with time and moby* [Video file]. Retrieved from <https://www.youtube.com/watch?v=R4EZQkNvXu0>

Uwaterloo. (2013, January 30). *When to cite your sources* [Video file]. Retrieved from

<https://www.youtube.com/watch?v=uY3OOpQbKkY>

Zhang, X. (2012, January 11). *Be a digital citizen* [Video file]. Retrieved from

<https://www.youtube.com/watch?v=FdEXijFXfD8>

# Attachment: Technology Survey

**Technology Survey**

Needs assessment in MCPS

How many years have you been teaching?



What is your highest degree of education?

* +  Bachelor's Degree
  +  Master's Degree
  +  Master's Plus 30
  +  Master's Plus 60

How comforable are you with using technology?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |  |
| Not comfortable |  |  |  |  |  | Very comfortable |

Do you feel the teachers in MCPS use technology effectively in their classrooms?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |  |
| No very much |  |  |  |  |  | Very much |

Are teachers' lessons using tthe Promethan Board interactive?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |  |
| Never |  |  |  |  |  | Very interactive |

Do teachers' lessons using technology use effectiving teaching strategies?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |  |
| Never |  |  |  |  |  | Always |

What are topics that teachers would benefit from additional staff training with?

Choose as many answers as you would like.

* +  Teaching with Promethean Boards
  +  Using blogging with elementary students
  +  E-books in the elementary classroom
  +  Safe research in the classroom
  +  Apps to use with elementary students
  +  Digital sharing beyond word processing
  +  Critical Thinking using Technology
  +  Other: 

Source: <https://docs.google.com/forms/d/1sJTo0vNntE1ItkhinB27ID8zxHVpMyVndWrON14EoIk/viewform>